

1  
SEQUENCE LISTING

<110> Tuszynski, George  
Williams, Taffy  
Actor, Paul

<120> RETROINVERSO POLYPEPTIDES THAT MIMIC OR INHIBIT  
THROMBOSPONDIN ACTIVITY

<130> 07206-0021

<140> 09/197,770  
<141> 1998-11-23

<160> 40

<170> PatentIn Ver. 2.0

<210> 1  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic or human  
fragment/ analog of thrombospondin

<400> 1  
Cys Ser Val Thr Cys Gly  
1 5

<210> 2

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic  
fragment/ analog of thrombospondin

<400> 2

Trp Ser Pro Cys Ser Val Thr Cys Gly  
1 5

<210> 3

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic  
fragment/ analog of thrombospondin

<220>

<223> Xaa1 is hydrogen, amino, acetyl or at least one amino acid residue  
or the desamino form thereof;

Xaa2 is a neutral/non-polar/large/cyclic amino acid residue;

Xaa3 is a neutral/polar/small or neutral/polar/large/non-cyclic or  
acidic amino acid residue;

Xaa4 is a neutral/nonpolar/large/cyclic or neutral/non-polar/large/non-cyclic or neutral/polar/large/non-cyclic or neutral/polar/small amino acid residue;  
 Xaa5 is a neutral/polar/small amino acid residue;  
 Xaa6 is a neutral/polar/small or neutral/polar/large/non-cyclic amino acid residue;  
 Xaa7 is a neutral/nonpolar/large/non-cyclic or neutral/polar/large/non-cyclic amino acid residue;  
 Xaa8 is a neutral/polar/large/non-cyclic or neutral/polar/small amino acid residue;  
 Xaa9 is a neutral/polar/small amino acid residue;  
 Xaa10 is a neutral/polar/small amino acid residue;  
 Xaa11 is hydroxyl, carboxyl, non-amino acids such as agmatine, or at least one amino acid residue, including carboxyamide or alkylamide forms thereof.

<400> 3  
 Xaa  
 1 5 10

<210> 4  
 <211> 7  
 <212> PRT  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: synthetic fragment/ analog of thrombospondin  
  
 <220>  
 <223> Xaa1 is a protected or unprotected terminal amino group, including hydrogen, amino, acetyl or at least one amino acid residue or the desamino form thereof;  
 Xaa3-5 are the same or different neutral/non-polar/large/non-cyclic or neutral/polar/large/non-cyclic or neutral/polar/small or basic/non-cyclic amino acid residues, preferably selected from the group consisting of valine, threonine, serine, and arginine;  
 Xaa7 is a protected or unprotected terminal carboxyl group including hydroxyl, carboxyl, or at least one amino acid residue, including carboxyamide or alkylamide forms thereof, preferably selected from the group consisting of lysine, glycine, and arginine.

<400> 4  
 Xaa Cys Xaa Xaa Xaa Cys Xaa  
 1 5

<210> 5  
 <211> 6  
 <212> PRT  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: synthetic fragment/ analog of thrombospondin

<400> 5  
 Gly Cys Thr Val Ser Cys  
 1 5  
 <210> 6  
 <211> 6

<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
fragment/ analog of thrombospondin

<220>  
<223> Cys at positions 1 & 5 are blocked with (ACM)

<400> 6  
Cys Ser Val Thr Cys Gly  
1 5

<210> 7  
<211> 6  
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<220>  
<223> Description of Artificial Sequence: synthetic  
fragment/ analog of thrombospondin

<400> 7  
Val Cys Thr Gly Ser Cys  
1 5

<210> 8  
<211> 4  
<212> PRT  
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<220>  
<223> Description of Artificial Sequence: synthetic  
fragment/ analog of thrombospondin

<400> 8  
Val Thr Cys Gly  
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<210> 9  
<211> 6  
<212> PRT  
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<223> Description of Artificial Sequence: synthetic  
fragment/ analog of thrombospondin

<400> 9  
Cys Ser Thr Ser Cys Gly  
1 5

<210> 10  
<211> 9  
<212> PRT  
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fragment/ analog of thrombospondin

<400> 10  
Trp Asp Ile Cys Ser Val Thr Cys Gly  
1 5

<210> 11  
<211> 9  
<212> PRT  
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<220>  
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fragment/ analog of thrombospondin

<400> 11  
Trp Ser Ser Cys Ser Val Thr Cys Gly  
1 5

<210> 12  
<211> 9  
<212> PRT  
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fragment/ analog of thrombospondin

<400> 12  
Trp Thr Ser Cys Ser Thr Ser Cys Gly  
1 5

<210> 13  
<211> 23  
<212> PRT  
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<220>  
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fragment/ analog of thrombospondin

<400> 13  
Trp Ser Pro Trp Ser Glu Trp Thr Ser Cys Ser Thr Ser Cys Gly Asn  
1 5 10 15

Gly Ile Gln Gln Arg Gly Arg  
20

<210> 14  
<211> 23  
<212> PRT  
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<220>

<223> Description of Artificial Sequence: synthetic  
fragment/ analog of thrombospondin

<400> 14

Trp Ser His Trp Ser Pro Trp Ser Ser Cys Ser Val Thr Cys Gly Asp  
1 5 10 15

Gly Val Ile Thr Arg Ile Arg  
20

<210> 15

<211> 23

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic  
fragment/ analog of thrombospondin

<400> 15

Trp Gly Pro Trp Ser Pro Trp Asp Ile Cys Ser Val Thr Cys Gly Gly  
1 5 10 15

Gly Val Gln Lys Arg Ser Arg  
20

<210> 16

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic  
fragment/ analog of thrombospondin

<400> 16

Trp Ser Pro Cys Ser Val Thr Cys Ser  
1 5

<210> 17

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic  
fragment/ analog of thrombospondin

<400> 17

Trp Ser Gln Cys Ser Val Thr Cys Gly  
1 5

<210> 18

<211> 9

<212> PRT

<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
fragment/ analog of thrombospondin

<400> 18  
Trp Ser Gln Cys Asn Val Thr Cys Gly  
1 5

<210> 19  
<211> 9  
<212> PRT  
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<220>  
<223> Description of Artificial Sequence: synthetic  
fragment/ analog of thrombospondin

<400> 19  
Trp Thr Pro Cys Ser Val Thr Cys Gly  
1 5

<210> 20  
<211> 59  
<212> PRT  
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<220>  
<223> Description of Artificial Sequence: synthetic  
fragment/ analog of thrombospondin

<400> 20  
Asp Gly Gly Trp Ser His Trp Ser Pro Trp Ser Ser Ser Val Thr Cys  
1 5 10 15

Gly Asp Gly Val Ile Thr Arg Ile Arg Leu Cys Asn Ser Pro Ser Pro  
20 25 30

Gln Met Asn Gly Lys Pro Cys Glu Gly Ala Arg Glu Thr Lys Ala  
35 40 45

Cys Lys Lys Asp Ala Cys Pro Ile Asn Gly Gly  
50 55

<210> 21  
<211> 6  
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<220>  
<223> Description of Artificial Sequence: synthetic  
fragment/ analog of thrombospondin

<220>  
<223> disulfide linked

<400> 21  
Cys Ser Val Thr Cys Gly  
1 5

<210> 22  
<211> 6  
<212> PRT  
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<220>  
<223> Description of Artificial Sequence: synthetic  
fragment/ analog of thrombospondin

<220>  
<223> disulfide linked

<400> 22  
Cys Ser Thr Ser Cys Gly  
1 5

<210> 23  
<211> 6  
<212> PRT  
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<220>  
<223> Description of Artificial Sequence: synthetic  
fragment/ analog of thrombospondin

<220>  
<223> blocked Cys residues

<400> 23  
Cys Ser Thr Ser Cys Gly  
1 5

<210> 24  
<211> 6  
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<220>  
<223> Description of Artificial Sequence: synthetic  
fragment/ analog of thrombospondin

<400> 24  
Cys Arg Val Thr Cys Gly  
1 5

<210> 25  
<211> 6  
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<220>  
<223> Description of Artificial Sequence: synthetic  
fragment/ analog of thrombospondin

<220>  
<223> disulfide linked

<400> 25  
Cys Arg Val Thr Cys Gly  
1 5

<210> 26  
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<212> PRT  
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<220>  
<223> Description of Artificial Sequence: synthetic  
fragment/ analog of thrombospondin

<220>  
<223> disulfide linked

<400> 26  
Arg Cys Arg Val Thr Cys Gly  
1 5

<210> 27  
<211> 6  
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fragment/ analog of thrombospondin

<400> 27  
Cys Ser Val Thr Cys Lys  
1 5

<210> 28  
<211> 6  
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<223> Description of Artificial Sequence: synthetic  
fragment/ analog of thrombospondin

<400> 28  
Cys Ser Val Thr Cys Arg  
1 5

<210> 29  
<211> 6  
<212> PRT  
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fragment/ analog of thrombospondin

<400> 29  
Cys Ser Arg Thr Cys Gly  
1 5

<210> 30  
<211> 6  
<212> PRT  
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<220>  
<223> Description of Artificial Sequence: synthetic  
fragment/ analog of thrombospondin

<220>  
<223> disulfide linked

<400> 30  
Cys Arg Val Thr Cys Gly  
1 5

<210> 31  
<211> 6  
<212> PRT  
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<220>  
<223> Description of Artificial Sequence: synthetic  
fragment/ analog of thrombospondin

<400> 31  
Cys Arg Thr Ser Cys Gly  
1 5

<210> 32  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
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fragment/ analog of thrombospondin

<400> 32  
Cys Ser Thr Ser Cys Arg  
1 5

<210> 33  
<211> 5  
<212> PRT  
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<220>  
<223> Description of Artificial Sequence: synthetic  
fragment/ analog of thrombospondin

<400> 33  
Cys Arg Val Thr Cys  
1 5

<210> 34  
<211> 5  
<212> PRT  
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fragment/ analog of thrombospondin

<400> 34  
Cys Ser Thr Ser Cys  
1 5

<210> 35  
<211> 6  
<212> PRT  
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fragment/ analog of thrombospondin

<220>  
<223> Cys at positions 2 & 6 are blocked with (ACM)

<400> 35  
Gly Cys Thr Val Ser Cys  
1 5

<210> 36  
<211> 5  
<212> PRT  
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<223> Description of Artificial Sequence: synthetic  
fragment/ analog of thrombospondin

<400> 36  
Gly Arg Gly Asp Ser  
1 5

<210> 37  
<211> 7  
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fragment/ analog of thrombospondin  
  
<220>  
<223> Cys at positions 2 & 6 are blocked with (ACM)